SUMMARY

An Actionable Vision of Transport Decarbonization
IMPLEMENTING THE PARIS AGREEMENT IN A GLOBAL ROADMAP AIMING AT NET-ZERO EMISSIONS TRANSPORT

Action Plan – Implementing the Paris Agreement on Climate change for Transport

The Big Three International Agreements
Quick Facts

- The transport sector (people and goods) accounts for approximately 24% of CO2 emissions from the burning of fossil fuels and 15% of GHG emissions worldwide (the proportion of emissions from transportation is even greater in CA).
- Experts forecast a "potential doubling of transportation activity by 2050, resulting in a business-as-usual (BAU) emissions scenario of about 12-13 Gt/year."
- Urban growth is expected to rise to 3 billion new inhabitants by 2050.
- **The challenge:** providing for an increased need of mobility and transport, "while drastically cutting GHG emissions."
- **The goal:** "move from 7.7Gt emissions/year down to 3 or 2Gt by 2050 and aim to 'net-zero-emissions' between 2060 (most advanced areas) and 2080 (other parts of the world)."

The 2030 Agenda for Sustainable Development – New York, September 2015
- Calls for improved economic opportunities and services which can only be achieved through a large increase in transport infrastructure and services.

The Paris Agreement at COP21 – Paris, December 2015
- Establishes a long-term direction for climate change policy.
- Declares a need for disruptive change, as "incremental approaches will be insufficient to realize needed reductions in greenhouse has (GHG) emissions in line with the ambitious target of limiting temperature increases 'well below 2 degrees Celsius above pre-industrial levels and to aim for a temperature increase of not more than 1.5 degrees Celsius."

The New Urban Agenda – Quito, October 2016
- Like the *2030 Agenda for Sustainable Development,* it calls for improved economic opportunities and services through a large increase in transport infrastructure and services.

Time to Take Action Now
1. **Plan for mid-long-term disruptions towards a systemic transformation of the Transport sector (2020-2050+):**
    a. bring together all relevant stakeholders (public and private sector, think tanks) around a sound Global Macro-Roadmap, a reference or compass to set the course towards the long-term direction set in Paris, enabling each actor to develop their own positioning and work out their contribution in line with the overall directions set by the Global Macro-Roadmap.

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2. **Taking the short term decisions which the success of the Paris Agreement ultimately depends on (2016-2020):**
   a. recommend urgent measures (Quick Wins) to public authorities and private sector stakeholders to kickstart the transformation of the Transport sector;
   b. contribute towards strengthening of existing NDCs and support them to push up the required ambition level in 2020, inspired by the directions set in the Global Macro-Roadmap.
3. **Leveraging existing GCAA Transport Initiatives and encouraging new ones:**
   a. Strengthen GCAA Transport Initiatives, improve their governance, and help them to scale up by linking more directly to action by Parties;
   b. Promote the emergence of new Initiatives to address those areas of action that have yet to be worked out by the Transport sector.

A Global Macro-Roadmap to Decarbonize Transport by 2050+

"The recent adoption of the 2020 Sustainable Development Goals (SDGs) and the signing of the Paris Agreement on climate change have set, for us all, clearer long-term goals to improve human well-being, and have added a new level of urgency to implementing long-south but little-realized steps toward these ends…this is why the GCAA Transport team proposes the development of a decarbonization roadmap as described below."

- **Component 1:** Synergistic urban transformation – Leverage aspiration for healthier, inclusive lifestyles and less wasted time to drive de-carbonization
- **Component 2:** low-carbon energy supply strategy
- **Component 3:** Improve modal and system efficiencies
- **Component 4:** De-fragment and shorten supply chains (freight)
- **Component 5:** Transform work practices and accelerate unwanted individual commuting reduction
- **Component 6:** Tailor solutions for the rural (non-urban) populations
- **Component 7:** Invest in adaptation
- **Component 8:** Speed up the advent of economic instruments giving a value to carbon, de-risking long-term investment in low-carbon solutions, and helping society at large embrace new behaviors/technologies

Quick Wins – Initiating Immediate Disruptive Action

"A selection of 20 pre-2020 actions are proposed for full-scale implementation in the next 4 years, in line with the Global Macro-Roadmap towards genuine systemic transformation of the Transport sector. These 20 "Quick Wins" were reviewed and shortlisted in consultation with a large panel of experts and sector actors. They touch upon all transportation modes under what is a resolutely multimodal approach targeting the

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worst externalities, in both the mobility of people and freight transport. They are attuned to regional concerns, they include all change drivers (new technologies, new behaviors) and they underpin new value creation and business models."

Operational and Capacity Solutions

- Expand city transport official training programs to build local capacity for sustainable transport in primary and secondary cities.
- Formulate Sustainable Urban Mobility Plans (SUMPs) in primary and secondary cities.
- Modernize ageing rail fleets and traction systems to increase efficiency.
- Ramp up charging infrastructure to encourage expansion of electric vehicle fleets in primary and secondary cities.

Freight Transport

- Expand sustainable freight recognition schemes to reward proactive carriers and shippers.
- Implement zero-emissions (last-mile) urban freight through e-mobility and cycling solutions.
- Improve freight efficiency (e.g. reduce empty load running by freight trucks) through route optimization, asset sharing between companies, and increased use of ICT/ITS solutions.
- Invest in rural road maintenance and modern supply chains to reduce global food loss and waste.

Passenger Transport

- Expand car and (e-)bike sharing systems in primary and secondary cities.
- Increase quality, availability, reliability, frequency, and efficiency of bus-based transit.
- Provide and improve walking and cycling infrastructure (e.g. connected walking paths, protected cycle lanes), reallocating road space where necessary.

Technical and Regulatory Solutions

- Accelerate deployment of tighter fuel quality standards to reduce emissions of black carbon and other short-lived climate pollutants.
- Expand use of ICT/ITS applications for real-time travel information and route planning for walking, cycling, public transport and car sharing.
- Legislate and enforce stricter speeding regulations by operational and technical means to reduce emissions and road crashes.
- Tighten fuel economy standards for passenger and freight vehicles towards 2040-2050 objectives.

Policy/Pricing Solutions

- Accelerate global phase-out of fossil fuel subsidies.
- Implement (ultra-) low emission zones.

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- Introduce carbon pricing for the Transport sector where (sub-) national carbon markets currently exist or are under development.
- Introduce car-free days and ciclovías (temporary street closures to encourage cycling and walking) in primary and secondary cities to build support for longer-term policies.
- Introduce and scale up pricing for motorized travel options (e.g. congestion/road charging, parking pricing) in primary and secondary cities.

Way Forward

Next Steps in the Development of Global Macro-Roadmap and Implementation of Quick Wins

1. Mapping of other existing contributions to potentially enrich the roadmap.
2. Assessment of mitigation potential.
3. Prioritizing Roadmap elements.
4. Roadmap Validation.
5. Building Support for Global Roadmap.

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